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Discussion on "Colds and Catarrhal Conditions."

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DR. O'Brien dealt with three aspects of the subject. After long investigations into the flora of the nose and throat in health and during catarrh, and search for a causal filterable virus, we do not know what *causes* "common colds." After reviewing some of the more recent investigations the speaker suggested that real progress would be made only on the lines of the American work in yellow fever and dengue. If some wealthy philanthropist could persuade say 100 suitable human beings to live for a year in an isolated community under prescribed conditions and submit themselves as experimental subjects for infection with various cultures, filtrates, etc., progress might be made.

With regard to *prevention by vaccines*, the speaker was glad to learn from the discussion that a combined investigation in public schools was in prospect. The few large-scale experiments that had been made during the past ten years gave no proof that vaccination was a reliable prophylactic. If he might venture to comment on the investigation in prospect he would plead that a medical statistician should be not merely a member of the Committee, but at the centre of it when the scheme was drafted and in being, so that the enquiries may be so shaped as to yield the maximum of knowledge. In a recent enquiry into the effect of a vaccine on some 15,000 sheep, the speaker had been struck by the many instances in which a conclusion, which might seem to be safely based on a small group of figures, had to be modified when the full details were examined, faulty controls eliminated and large groups of figures collected and analysed. In the Metropolitan Life Assurance Company experiments in New York, Park pointed out that the vaccinated could not be truly compared with the unvaccinated, for those who volunteered most readily for vaccination were those who had suffered most from respiratory troubles (21 per cent.), while amongst the unvaccinated group only 10 per cent. had so suffered.

With regard to *epidemiology* generally, Dr. O'Brien considered that a concerted enquiry in residential schools of the poor-law and orphanage type or of the preparatory and public school type may give us the elementary inform-

ation we need. If a "cold" is introduced into such a comparatively isolated community, does it breed true? Does a "nasal cold" reproduce itself in that form amongst all the other inmates, or may a cold commencing with sore throat and cough spread through the school as a cold commencing with sneezing and rhinitis? If a cold breeds true does one attack really give immunity and, if so, for how long? Are masters naturally more immune than schoolboys, or do they use more common sense to avoid flying particles spread from sneezing and coughing by infected children? We all had our impressions as to the correct answers to these questions, but the speaker had nowhere been able to find any reliable observations.

He thought the "common cold" was a reproach to modern medicine. From his observations on a small community for some years he thought that probably 90 per cent. of the population of a city like London suffered from at least one cold each winter. He had analysed the sick payments in connection with wage payments of a limited group of people, and he found that the payments for absence through cold every winter had amounted to 2.6 per cent. of the total wage bill. The percentage owing to unreported colds was almost certainly much higher. This economic loss took no account of the under-efficiency of many workers who remained at work while suffering from acute coryza.

If the above figure held for the whole working population, the total loss in a year must be large.

The speaker remembered being told during the great influenza wave at the end of the War, that the crew of an ambulance train who handled large numbers of severely infected soldiers, escaped infection entirely by methods of spraying throat and nose and gargling. He had a considerable amount of faith himself in the power of an antiseptic oily spray, used continuously, to give a reasonable degree of protection.

